ABC NEWS - STS-4 LAUNCH (6-27-1982)

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From Sunday, June 27th, 1982 ABC NEWS Coverage of STS-4, the 4th Space Shuttle Launch.

STS-4 CREW:
Commander: Thomas K. Mattingly II
Pilot: Henry W. Hartsfield, Jr.

- Launched at 11:00 am EDT.

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columbia the space shuttle is on the path there at cape kennedy at cape canaveral i should say at the kennedy space center and the clock is uh still stopped with uh nine minutes to go gene cernan um everything seems to be going very well but of course we all remember past occasions when we got right down to the 30-second mark as a matter of fact you got down to about that point on your mission didn't you when all of a sudden there was a delay frank it uh as i sit here in a booth knowing uh you're in washington and uh and lynn is in in houston i feel like i'm i'm suffering the emotional strain of this launch but i love it uh yes all right we're about to get a message now from launch control here we go t minus nine minutes and uh holding we have about 56 seconds remaining before coming out of the hold at the t minus nine minute point uh we have had a go on the fuel cell and are presently getting goes from the various managers monitoring uh this morning's launch uh al o'hara the launch director has wished the crew a successful liftoff and mission and says that we will see them in california on the and our country's 206th anniversary center director dick smith wished them a good trip and said godspeed and a war eagle the war eagle being the uh battle cry of the auburn university teams of which both of our uh astronauts on this morning's flight our alumnus as well as center director dick smith coming out of our built-in hold t-minus nine minutes and counting all right they are counted you see the clock is going now at eight minutes and fifty seconds to go it is interesting to note that uh this is probably the first time that uh two astronauts have gone into space together both alumni of the same institution auburn in uh alabama tom mattingly has

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auburn in uh alabama tom mattingly has been in space before he was the commander of uh apollo 16 the command module pilot of apollo 16 and here is what he has had to say recently about his uh mate on this mission henry hartsfield thanks one of those people that is i guess you would describe him as just genuinely honest candid human being he's one of the funniest people i've ever known you can go through a day and and he can work hard but there's always he can make up a joke or a pun about whatever you're doing that fits in it doesn't distract from your activities it just makes makes what you're doing fun well they should have fun and mattingly has of course referred to this as the magic machine this shuttle and how does uh hank hartsfield feel about ken matigley well we have a report on that too very intense person perhaps one of the hardest working individuals i've ever known talented he knows an awful lot about the orbiter and he works very hard at it and very capable well as you can see they are both kind of low-key personalities but uh they're all set to go right now nestled uh up there in the cockpit of columbia the space shuttle that has gone into space three times before has always had uh flawless takeoffs and flawless landings the landing will be one week from today july the 4th at edwards air force base in california we are only seven minutes away now from a site that always thrills whenever it occurs it's just never going to become routine have a good drink now young man because you're going to hear a big roar in about seven minutes there's a white room uh moving back uh i believe frank uh we can't see it yet on our monitor but there it is it's moving away from the uh the hatch area that's where the the crew walks uh from out of the tower and into

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walks uh from out of the tower and into the uh hatch of the orbit it's moving away for clearance and it might be uh well to remember as soon as sts-4 gets uh in space we'll uh i believe have four russians a frenchman and and two americans up there all at the same time and i would venture to say the two americans can carry their share of the weight up there yes their orbital paths are not going to bring them uh very close to each other too i guess there's a lot of room up there now space is pretty big this is a uh satellite space picture taken at uh oh at nine o'clock this morning about an hour and a little more than two less than two hours ago and you can see how clear it is over the cape area the temperature right now 85 degrees light scattered clouds visibility seven miles did john young go up in his weather plane already to verify that everything is okay for a landing at the cape in case they had to come back he did uh frank but i ventured to say he could have done that from the ground i don't think i've ever seen a more perfect day to do anything uh certainly to to reach into space this morning there's a view from the white room as we as we look down the path that the the big service structure rolled out uh many many weeks ago to bring the shuttle to the pad that's quite a shot too these are some nasa cameras here here's the voice of uh shuttle recorders information for playback after landing coming up on the five minute point 12 seconds away the orbiter flight recorders are on frank peace coming up on t minus five everything looks good mark he finds five minutes and counting and we have a goal for apu starts frank these pictures that we've been seeing are engineering pictures that are located all around the pad there's some 50-plus of them uh for engineering analysis after the launch yes and there are some chase planes too that might provide some pictures even as we uh get away hydraulic power to move the

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get away hydraulic power to move the aerospace as aero surfaces and main engines for steering about to remove the cap off the uh external tank too 30 seconds and counting the firing circuit for the solid rocket booster ignition and range safety destruct devices have been armed this is done with a motor driven switch called a space center um device they're in the process of starting auxiliary power units of course that's a second familiar term uh to us because we've had trouble with uh with those units before we're not very far away i just want to remind you before we get going here that uh this week with david brinkley will immediately follow our broadcast at 11 30 eastern time and the topic of discussion will be the changeover and uh ignition sequence starts culminating with ignition and liftoff at t zero frank i don't know exactly how many people were here but uh i've never seen so many cars on a nasa causeway uh they were about 12 abreast stretching for uh six to eight miles it was just incredible sure i can understand that gene and the young people are just going through the course they're out of school but they've been here for two or three days and and this launch in disney world of course is going to be the high points in their in their lives for a long time well i'll bet there are a lot of repeaters too people who've been down there that have seen it once want to come back and see it again well there's a few of us grown-ups here who get a little excited about it too t-minus three minutes five seconds and counting we can be looking for the big cap on the uh on the tank as we see it there on the liquid hydrogen and oxygen tank to be uh to move back here shortly they keep that on there until almost the very end in order to prevent the accumulation of any gases that's right they like to keep replenishing the liquid hydrogen oxygen of course it's so cold it it they have to keep it keeps evaporating they have to keep replenishing it t-minus two minutes 40 seconds and

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t-minus two minutes 40 seconds and counting this will be the second launch for ken mattingly he went up 10 years ago in april of 1972 but it'll be the first ride into space for hank hart's field ground supply of oxygen two minutes away there goes that big cover on the on the tip of the external tank being removed now the spacecraft is on its own internal uh electrical power so she's pretty well self-contained the main engines have been moved to start position the astronauts have cleared the caution and memory warnings uh in their onboard computers and verified there are no unexpected errors t-minus two minutes and counting the astronauts are configuring the auxiliary power units for liftoff nasa is going to be bursting with pride if this goes off just on the appointed second pressurization underway you might have said it before and this may be the fourth launch but it's uh it's always the first time certainly for the guys on board and uh for most of the rest of us there they are and their analysis of each other was was very good they're both extremely capable they're they're not extremely outgoing however but they sure know how to get the job done columbia is really finding a look at home the liquid hydrogen tank is at flight pressure coming up on the one minute point in our countdown coming up on t-minus one minute t-minus one minute and counting the firing system for the sound suppression water system on the pad is armed frank my heart rate just went in the launch phase yes it's going to be a tremendous cloud of 70 minutes 45 seconds we were 14 seconds away from switching command of the countdown from the ground computers to the onboard computers

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computers there's little or no point to get past this 30-second mark the bent arm is fully retracted and we're switching control of the countdown to the on-board computers t-minus 25 seconds the srb hydraulic power units have started t minus 20 seconds and counting little or no wind we can expect lots of smoke minus 15 t minus 10 9 eight seven six so baby we have made four three two one and we have solid motor ignition and lift off lift off of america's space shuttle [Music] 20 seconds rush looks good 26 seconds rolling over completing 30 seconds one nautical mile in altitude quality digits status looks good mission control 42 seconds columbia now three nautical miles altitude 46 seconds coming up on create a maximum dynamic pressure on the vehicle more than a second booster 56 seconds pass through next year still looking good driving here giving it throw one minute ten seconds columbia now seven nautical miles altitude four nautical miles downrange

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here in the firing room one minute physically struck and shook the windows next critical point is the uh just in about and there they go now she's on her uh until 8 minutes and 50 seconds into the launch columbia now 33 nautical miles in altitude that's really carrying the mail will be light into a depressed trajectory that flame you see now is from liquid hydrogen and liquid oxygen magnificent cameras to be able to capture this at this distance too engine power oh three minutes 12 seconds i'd call up by capcom dave great says that colombia now has landing capability at the car airport should one engine go out three minutes 20 seconds columbia now 44

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three minutes 20 seconds columbia now 44 nautical miles in altitude 83 nautical miles downrange a return status check emission control by flight director tom holloway they're beyond the point of returning out of the cape if anything did happen they would go on to dakar synagogue of course there's no indication of that obviously they could land at the car which is on the other side around the western side of africa we're going to see once again the replay now of the launch there was no wind so we got perhaps the clearest view frank uh because the smoke stayed to the side and we could see the columbia lift off right in between that tremendous double plume there goes [Music] it is and we'll again have it's just like frame by its own by its own tail of smoke and flame that's what always strikes pg that wall of flame that lifts it right up look at it reaches almost to the pad you can see almost every movement of it is it begin to move away from the pad and it began its roll program and we felt here perhaps greater than any other launch the the the sound and the pressure effects is the booth just literally shook reminded me of the days of apollo it's a pretty rocky ride too isn't it in the early stages well it's it's it's here we go again nine eight seven six we have main engine ignition four three two one disappear [Music] this was the side view of course we had the front view now you can see it roll here as it rolls to the right and then starts pitching out over the atlantic as it gains altitude and speed control confirms it rolls almost immediately gene doesn't it almost as soon as you expect as soon as it clears the pad frank it starts that roll program to almost a full 90 degrees i believe maybe more than that but it is very rough but it's very noisy

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but it is very rough but it's very noisy for the crew it's a combination of vibration and noise the power with the right wisdom behind this vehicle they perceive word that they have they have enough power now to go on into orbit they do now they're coming up on six [Music] minutes engine power capability mark six minutes twelve seconds our report from capcom griggs indicates if a two engine failure occurred matthew and hartsfield are capable of an emergency landing at the car airport 58 nautical miles in altitude 358 nautical miles downrange velocity now reading 15 400 feet per second their profile takes them higher first and now it's beginning to gain speed so rapidly 40 seconds trajectory plots and mission construct control still on target this is a live shot from one of the chase planes you can still take 48 seconds altitude see that speed increase now they're really on their back uh still pointed upward a little bit but as they're headed across the atlantic uh and the speed is increasing almost by uh by increments of the speed of sound standing by for single-engine pressure you are a single engine gene how soon will they actually see the coast of africa at this point it should be coming over the horizon just about now uh

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the horizon just about now uh frank and of course they're on her back and they should have a beautiful view they should see the coast right now seven minutes 25 seconds columbia now 56 nautical miles in altitude 515 nautical miles downrange velocity now reading 19 900 feet per second frank what they do is of course to to conserve the most energy they try and gain altitude first and then they actually sort of pitch down just a little bit to gain a little bit more speed as they get enough speed to stay in orbit and then of course it pulses up to get the right altitude and in about a minute now they will lose the external tank the main engines should shut down and put them not in orbit but in a position to get in orbit when they fire their smaller on-board engines uh shortly thereafter shutdown that's the configuration of it right now the two solid rocket boosters have long since gone plunged into the atlantic and they'll be recovered to shut down here in about 15 seconds 20 seconds status looks good mission control they will actually shut down and they will get rid of the the only expendable part of the entire spacecraft waiting for confirmation eight minutes 40 seconds confirmed shut down columbia returned to space for the fourth time uh not yet returned to orbit by now for external tank separation to keep them in orbit they must add a little bit more energy to the spacecraft uh in terms of velocity and then they will certainly be in orbit for again another seven days separation colombia now moving below and beyond the external tank go no go status check emission control by flight director tom holloway for the first homes burning shutting down the auxiliary power unit frank they can't help but see the coast of africa on the earth's horizon but believe me uh it's just sort of a stealing glimpse because they're pretty

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stealing glimpse because they're pretty busy at this point i'm ready for this shutdown and now they're all alone too they don't have any uh of the appendages along with it the solid rocket boosters have gone the big external tank is gone for the first homes burn uh columbia will now be maneuvering to uh holmes one burn attitude columbia is now the way we see it uh when she comes home she's up there in the same configuration she lands in using the uh two six thousand pound thrust engine houston and the apu thermal can be ignored also thank you david holmes one will be posi grade moving columbia forward and higher on our flight path ten minutes mission elapsed time about uh a minute and a half away from los angeles now they are in space frank but they're not in orbit because the low point is too close it's within the earth's atmosphere and that's why they have to uh do this ohms burn as onboard maneuvering system burn to add a little bit more energy to bring up the low point of the orbit the uh references to the ohms uh burn really uh does not suggest that they have the kind of power that would enable them to uh to really fly colombia now in uh proper attitude for the first homes burn you know they can fly but they it's simply for maneuvering purposes in space and also of course for the re-entry reports the ignition on both homes engine looks good now this is very critical because as they say they're racing their orbits so that they can stay in space and after they make this first homes burn which is about a minute and a half in duration they will have added enough energy to be in 150 statute mile by 39 statute mile orbit they have to make then an essential second ohms maneuver to circularize at 150 miles columbia houston we are 30 seconds to los configure loss talk to you next step to car so they will be uh out of uh audio contact now for a time until they come up on the dakar ground tracking station and once again they'll

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tracking station and once again they'll be in communications with the mission control at houston so they're gone and everything is going well flight is proceeding flawlessly our coverage of space shuttle columbia will continue in a moment

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